Proposal Reviews

#13: Central Valley Steelhead Population Structure Evaluation

California Department of Fish and Game

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Initial Selection Panel Review

Research and Restoration Technical Panel Review

Delta Regional Review

San Joaquin Regional Review

Sacramento Regional Review

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Environmental Compliance

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Initial Selection Panel Review:

Proposal Number: 13

Applicant Organization: California Department of Fish and Game

Proposal Title: Central Valley Steelhead Population Structure Evaluation

Please provide an overall evaluation rating.

Explanation of Recommendation Categories: Fund

- **As Is** (a proposal recommended for funding as proposed)
- **In Part** (a proposal for which partial funding is recommended for selected project phases or components)
- **With Conditions** (a proposal for which funds are recommended if the applicant contractually agrees to meet the specified conditions)

Consider as Directed Action in Annual Workplan (a proposal addressing a high priority action that requires some revision followed by additional review prior to being recommended for funding)
Not Recommended (a proposal not currently recommended for funding-after revision may be considered in the future)

Note on "Amount":

For proposals recommended as Fund As Is, Fund In Part or Fund With Conditions, the dollar amount is the amount recommended by the Selection Panel.

For proposals recommended as Consider as Directed Action in Annual Workplan, the dollar amount is the amount requested by the applicant(s).

Fund	
As Is	-
In Part	-
With Conditions	-
Consider as Directed Action	X
Not Recommended	-

Amount: **$65,002.00**

Conditions, if any, of approval (if there are no conditions, please put "None"):

None

Provide a brief explanation of your rating:

Regional reviews support some progress on this topic.

The technical quality is of concern regarding this project that could otherwise have strategic value. It does address Implementation Plan priorities and can build on prior work and provide ecological benefits regarding reintroduction of steelhead populations. Valuable information may be obtained if the method works and there are criteria to identify migratory vs non-migratory rainbows. External science reviewers caution this distinguishing ability is not apparent, and advise validating the method, reconsidering the design and hypothesis, and revising for consideration as a directed action before going to the next step. The Selection Panel concurs.

A revised proposal may benefit from conferring with the proponents of proposals 15 and 123.

Research and Restoration Technical Panel Review:

CALFED Bay-Delta 2002 ERP PSP
Research and Restoration Technical Panel Review Form

Proposal Number: 13

Applicant Organization: California Department of Fish and Game

Proposal Title: Central Valley Steelhead Population Structure Evaluation

Review:

Please provide an overall evaluation summary rating:

Superior: outstanding in all respects;
Above Average: Quality proposal, medium or high regional value, and no significant administrative concerns;
Adequate: No serious deficiencies, no significant regional impediments, and no significant administrative concerns;
Not Recommended: Serious deficiencies, significant regional impediments or significant administrative concerns.

Overall Evaluation Summary Rating	Provide a brief explanation of your summary rating
-Superior	
XAbove average	**External reviews ranged from poor to excellent, but all were very supportive of the essential ideas of the proposal and we believe that, given its low cost, the project should be funded.**
-Adequate	
-Not recommended	

1. **Goals and Justification.** Does the proposal present a clear statement of goals, objectives and hypotheses? Does the proposal present a clear justification and conceptual model for the project?

   Goals of the project seem adequately described: to determine the extent to which steelhead population in the Central Valley may consist of resident and anadromous fish that may to varying degrees interbreed. The title, however, suggests development of stock structure and/or relatedness of different populations, a problem that is more frequently addressed using genetic methods. We therefore recommend that the title be changed to more correctly reflect the objectives of the study.

2. **Likelihood of Success (Approach, Feasibility, Capabilities and Performance Measures).** Is the project likely to succeed based on the approach, feasibility and project team capabilities? Are the proposed performance measures adequate for measuring the project's success?

Some limited preliminary data suggest that both types are present in some CA waters and Zimmerman has worked out SR-CA techniques in his dissertation work on the Deschutes River. There are however substantial concerns regarding sample sizes (what are they and are they large enough), selection of locations for sampling (where are they), and whether or not it might be useful to include some juveniles as well as adults.

3. **Outcomes and Products.** Will the project advance the state of scientific knowledge in general and/or make an important contribution to the state of knowledge of the Bay-Delta Watershed? For restoration proposals, is the project likely to contribute to ecosystem restoration or species recoveries in a significant way? Will the project produce products useful to decision-makers and scientists?

   Results from this study should be exceptionally valuable for NMFS recovery planning and for steelhead management in general. There are concerns that the project staff may not be capable of synthesis of findings over the collection of sampled streams.

4. **Cost/Benefit Comments.** Is the budget reasonable and adequate for the work proposed?

   Cost ($95k/2 yr) is very modest. An expanded set of collections, at greater cost, might be advised, perhaps including some juvenile sampling. The panel recommends that, if it is impractical to work up more samples in a given year, perhaps the project could be increased in length by at least an additional year.

5. **Regional Review.** How did the regional panel(s) rank the proposal (High, Medium, Low)? Did the regional panel(s) identify significant benefits (regional priorities, linkages with other activities, local involvement) or impediments (local constraints, conflicts with other activities, lack of local involvement) to this proposal? What were they?

   Regional Reviews were all high suggesting that the overall importance of this project is substantial. Some minor concerns were raised concerning prior reporting of results by the PIs.

6. **Administrative Review.** Were there significant concerns about the proposal with regard to the prior performance, environmental compliance and budget administrative reviews? What were they?

   No. CDFG employees would collect samples thus simplifying ESA compliance issues.

Miscellaneous comments:

Several reviewers noted that it would be good to coordinate this study with the steelhead life-history and genetics project proposed by S.P. Kramer & Associates (#123). We highly recommend this coordination if this related proposal is judged worthy of funding.

Delta Regional Review:

Proposal Number: 13

Proposal Title: Central Valley Steelhead Population Structure Evaluation

Overall Ranking: **-**Low   **-**Medium   **X**High

Provide a brief summary explanation of the committee's ranking:

The regional panel feels that this work is much needed.

1. Is the project feasible based on local constraints?

   XYes **-**No

   How?

   Steelhead should be available from the Eastside Tributaries.

   The applicants state "The collection of specimens is permitted through the Endangered Species Act 4(d) Rule that authorizes the CDFG to conduct monitoring and research activities for steelhead in the Central Valley. Incidental take authorization for collections in streams supporting spring-run chinook salmon (i.e., Deer Creek, Yuba River) is anticipated in the upcoming Endangered Species Act 4(d) rule. No additional incidental take permits or environmental documents will be required for this study."

2. Does the project pursue the restoration priorities applicable to the region as outlined in the PSP?

   XYes **-**No

   How?

   From the Restoration Priorities for the Delta and Eastside Tributaries Region:

   "4. Restore habitat that would specifically benefit one or more at-risk species; improve knowledge of optimal restoration strategies for these species.

   · Life histories and restoration or habitat requirements of at-risk species. Workshops, white papers, or pilot scale monitoring and survey programs that might summarize or better the state of knowledge about poorly known riparian or wetland species or groups of species that inhabit the Delta, especially where such studies can lead to population models (Strategic Goal 1, at-risk species assessments)."

3. Is the project adequately linked with other restoration activities in the region, such as ongoing implementation projects and regional planning efforts?

   XYes **-**No

How?

This is a "next phase" project (previous was #99-N12 Central Valley Steelhead Genetics Evaluation ERP).

The applicants state "This proposal is independent, with its own goals and objectives, but it is closely related to the Central Valley Steelhead Genetic Evaluation. It is also closely related to the CALFED funded study (FY98) by the U.S. Fish and Wildlife Service titled, "Genetic comparison of stocks considered for re-establishing steelhead, Oncorhynchus mykiss, in Clear Creek, a tributary to the Upper Sacramento River." This proposal is also related to previously funded studies on the life history of Central Valley steelhead (e.g., Yuba County Water Agency's "Life History and Stock Composition of Steelhead Trout" in the Yuba River).

4. Does the project adequately involve local people and institutions?

   XYes **-**No

   How?

   Applicants are all from DFG.

Other Comments:

The regional panel feels that this study should be coordinated with the study described in the proposal "Assessment of Life-History Characteristics and Genetic Composition of Oncorhynchus mykiss throughout California," which will focus on scale collection.

The regional panel suggests making funding contingent on delivery of products from previous phase, and requiring the applicants to submit an explicit schedule for product completion for this phase.

San Joaquin Regional Review:

Proposal Number: 13

Applicant Organization: California Department of Fish and Game

Proposal Title: Central Valley Steelhead Population Structure Evaluation

Overall Ranking: **-**Low   **-**Medium   **X**High

Provide a brief summary explanation of the committee's ranking:

The committee reviewed this plan and ranked it as a high priority. The proposal plans to establish whether the rainbow trout in the tributaries of the San Joaquin region are polymorphic or are split into fluvial and steelhead behaviors with out crossover in behaviors. The findings will help to establish the existence of steelhead populations in the tributaries at the least and might extend the steelhead lifestye to all rainbow trout in a system if they prove to be polymorphic. These findings could lead to changes in the current fish management practices in these tributaries.

1. Is the project feasible based on local constraints?

   XYes **-**No

   How?

   Applicant is a state agency with ESA coverage through 4D ruling in place for steelhead, incidental take for spring-run chinook in December (unless ruling is changed). No additional permits and environmental documents are anticipated. State agency has access to several sampling locations located on public lands and will gain access to privately held lands by agreements with landowners. State agency also has an extensive archived collection of biological samples for use in this proposal.

2. Does the project pursue the restoration priorities applicable to the region as outlined in the PSP?

   XYes **-**No

   How?

   Addresses Strategic goals #1 (at-risk species) and #3 (harvested species), Multi-regional #6, Sacramento Regional #7, and San Joaquin regional #4

3. Is the project adequately linked with other restoration activities in the region, such as ongoing implementation projects and regional planning efforts?

   XYes **-**No

   How?

Project is independent of but builds on information gathered in a CALFED/CVPIA phase 1 study on steelhead genetics/life history on the Yuba River. Numerous watershed conservancy groups restoration plans address steelhead habitat and proposal would document whether steelhead occurred in their watershed. Data from this project would benefit the Tuolumne, Calaveras, Mokelumne and possibly the Stanislaus and Cosumnes (secondary sampling sites) in our region.

4. Does the project adequately involve local people and institutions?

   XYes **-**No

   How?

   Regional agencies (i.e. DWR) Federal (USFWS, NMFS) and consultants (Jones & Stokes) interested in findings. Regional Watershed groups and stakeholders could be interested in the project's results for future restoration planning.

Other Comments:

Applicant needs to get further involvement from more local stakeholders, who are involved with the watersheds being considered for sampling. Presence of steelhead in several of these rivers could lead to modifications of water management practices and could affect future hydro-relicensing.

Sacramento Regional Review:

Proposal Number: 13

Applicant Organization: California Department of Fish and Game

Proposal Title: Central Valley Steelhead Population Structure Evaluation

Overall Ranking: **-**Low   **-**Medium   **X**High

Provide a brief summary explanation of the committee's ranking:

This is important work and should go forward, although there is concern regarding results of previous funded efforts. Accountability should be monitored.

1. Is the project feasible based on local constraints?

   XYes **-**No

   How?

   Feasible and technically possible.

2. Does the project pursue the restoration priorities applicable to the region as outlined in the PSP?

   XYes **-**No

   How?

   This proposal meets PSP priority Multi Region-6

3. Is the project adequately linked with other restoration activities in the region, such as ongoing implementation projects and regional planning efforts?

   XYes **-**No

   How?

   Researchers are heavily involved in steelhead restoration efforts.

4. Does the project adequately involve local people and institutions?

   XYes **-**No

   How?

   A more rigorous outreach plan would be beneficial.

Other Comments:

X

External Scientific: #1

Research and Restoration External Scientific Review Form

Proposal Number: **13**

Applicant Organization: **California Department of Fish and Game**

Proposal Title: **Central Valley Steelhead Population Structure Evaluation**

Conflict of Interest Statements:
I have no financial interest in this proposal.
XCorrect
-Incorrect

In the blank below please explain any connection to proposal, to applicant, co-applicant or subcontractor or to submitting institution (write "none" if no connection):

none

Review:

Please provide an overall evaluation summary rating:

Excellent: outstanding in all respects;
Good: quality but some deficiencies;
Poor: serious deficiencies.

Overall Evaluation Summary Rating	Provide a brief explanation of your summary rating
-Excellent	**I would actually rate this as between good and excellent and think that you should fund at least the validation work with project development monies if you have them. See reasoning above.**
XGood	
-Poor	

1. **Goals.** Are the goals, objectives and hypotheses clearly stated and internally consistent? Is the concept timely and important?

   Yes, this project has goals appropriate for CALFED funding. Goals and hypotheses are clearly stated and of high merit. Project is timely and will make a substantive controbution to both CALFED and the field of stock-identification as a whole.

2. **Justification.** Is the study justified relative to existing knowledge? Is a conceptual model clearly stated in the proposal and does it explain the underlying basis for the proposed work? Is the selection of research, pilot or demonstration project, or a full-scale implementation project justified?

Yes, the research is well justified and Dr. Zimmerman clearly is one of the leaders in the use of isotopic ratios to identify subcomponents of populations. The conceptual model is not conceptual and it refers to a figure that was not included in the proposal (Draft Stage 1 Implementation Plan [page 8])-- nor was it in part 1 of the web document (I didn't feel like searching all 6 parts to see what was on page 8). This isn't very helpful folks. Nonetheless, the ultimate justification for this research (i.e. should steelhead populations be managed as if they are composed of genetically distinct migratory and non-migratory forms, or are they just single populations composed of individuals that can swing either way [sorry couldn't resist it]) is solid from both a scientific and management point of view. Indeed this is a question that still has yet to be answered for steelhead, despite years of study on the species.

3. <u>**Approach.**</u> Is the approach well designed and appropriate for meeting the objectives of the project? Are results likely to add to the base of knowledge? Is the project likely to generate novel information, methodology or approaches? Will the information ultimately be useful to decision-makers?

   In general the approach outlined by the PI's is strong and well suited to tests of the stated hypotheses. Nonetheless I have several specific comments that follow.

   I'm not an expert in isotopic techniques, so I can't provide a rigorous commentary on the technology involved. However, as a population biologist, several aspects of this research concern me. It is apparent from the proposal (honest PI's here) that isotopic techniques aren't always capable of distinguishing different populations of fish inhabiting the same environment (e.g., Bruce Reiman's work on Sockeye). This suggests that variation in fresh water populations alone may be sufficiently broad to overwhelm the differences between migratory and non-migratory populations of salmonids. Yet there is no attempt in this proposal to validate the technique for California steelhead (i.e., definatively show that Sr/Ca ratios have a high probability of separating offspring of steelhead vs. offspring of non-migratory RBT). Consequently, we have no knowledge of how many false positives or false negatives the technique produces -- information that is essential for interpreting the results produced by this technique. In addition, without knowledge of the accuracy of the technique, will the PI's really be able to determine whether steelhead represent a genetically distinct subpopulation within resident rainbow populations? This may be particularly problematical for CA populations which typically have low abundances and hence, cannot support collection of large samples. I didn't read the Zimmerman and Reeves paper, and if the technique was validated for Oregon steelhead then we can have greater confidence in its utility. Nonetheless Oregon steelhead aren't CA steelhead. Can the PI's comment on this shortcoming?

   One interesting study that the authors could probably do in a short amount of time and gain insights into the accuracy of their technique, would be to compare the signatures from hatchery trout raised in hatchery's with different water chemistry's (hardness perhaps). This might give an indication of the abiilty of the technique to distinguish among freshwater populations (i.e. how different are signatures both within and among populations of known origin)and yield insights into whether this variation may be greater than that between marine and resident components of a population (after all steelhead stray).

   I'm not very comfortable with the author's criterion for distinguishing oceanic from resident rainbows -- its seems arbitrary. Perhaps they can provide supporting data or citations.

   How many specimens will be examined per population? Will some objective criterion be used for dermination of sample size?

An unpaired t-test is not a very powerful test for these analyses (especially when n's are likely to be low -- the authors should consult with a biostatistician for alternatives. CF&G used to have a really competent statistician in Sacto. Ralph something, Ralph Ferguson? (big help, eh) and he did some work in Maine.

Hey Zimmerman - don't cite your dissertation for methods, it's not widely available to outside reviewers and I'm sure not going to buy a copy to do this review even if I had the time to read it. You're supposed to be making it easy for a reviewer to evaluate your methods.

4. <u>**Feasibility.**</u> Is the approach fully documented and technically feasible? What is the likelihood of success? Is the scale of the project consistent with the objectives?

   See the comments above in the Approach section. If the method can be validated then the project is feasable. Frankly, I would give them some extra money to do the hatchery study or some other validation work (look at coastal populations, especially those in the Central Coast that are likely to have both steelhead and residents in their pops), as well as the money requested in this proposal. I say this because the technique definately is innovative and holds great promise for management purposes. On the other hand you might want to just give them some project development money and ask for the vailidation first.

5. <u>**Project-Specific Performance Measures.**</u> Does the project include appropriate performance measures to measure success relative to the project's goals and objectives? Is there enough detail as to how the performance measures will be quantified? For restoration projects, are monitoring plans explicit and detailed enough to determine if performance measures will be adequately assessed?

   See below -- you need to get a committment for scientific publication of this research (yes I know its the last thing listed), not just quarterly reports, meeting presentations, etc.

6. <u>**Products.**</u> Are products of value likely from the project? Specifically for restoration projects, are products of value also likely from the monitoring component? Are interpretative outcomes likely from the project?

   The PI's should produce 1-2 publications in scientific journals from these results. There is no doubt that if the technique is validated, the PI's will be able to provide information which could potentially change how steelhead are managed.

7. <u>**Capabilities.**</u> What is the track record of applicants in terms of past projects? Is the project team qualified to efficiently and effectively implement the proposed project? Do they have available the infrastructure and other aspects of support necessary to accomplish the project?

   Well I'm not really sure how to evaluate the PI's competency. As an outside reviewer I don't find statements like "X has been doing job Y for 20 years particularly informative". I mean after all, they could have done a lousy job for those 20 years. Frankly, reviewers generally look at the PI's publication record and little is presented here with the exception of Zimmerman's work and we certainly have a bit too much detail there (no Christian, I didn't need to know that you presented a fish study to your high school biology class). Did Dr. Titus publish his dissertation? Zimmerman certainly seems qualified to do the work and eventually publish it, but compentency of the other PI's is hard to evaluate, especially when compared to the credentials of academic researchers that have submitted competing CALFED proposals.

There also are some obliquely referenced problems that have apparently occurred in the previously funded steelhead genetics project -- not sure how those should be taken into account, but they certainly raise a red flag.

8. **Cost/Benefit Comments.** Is the budget reasonable and adequate for the work proposed?

   Very good.

Miscellaneous comments:

Research and Restoration External Scientific Review Form

Proposal Number: **13**

Applicant Organization: **California Department of Fish and Game**

Proposal Title: **Central Valley Steelhead Population Structure Evaluation**

Conflict of Interest Statements:
I have no financial interest in this proposal.
XCorrect
-Incorrect

In the blank below please explain any connection to proposal, to applicant, co-applicant or subcontractor or to submitting institution (write "none" if no connection):

The primary subcontractor, Chris Zimmerman, did his undergraduate work at HSU in Fisheries, I know him personally, and he did his PhD with one of my good friends, G. Reeves.

Review:

Please provide an overall evaluation summary rating:

Excellent: outstanding in all respects;
Good: quality but some deficiencies;
Poor: serious deficiencies.

Overall Evaluation Summary Rating	Provide a brief explanation of your summary rating
-Excellent	**Although it would be extremely interesting to learn more about the relations among resident and anadromous forms of steelhead in the CV, this proposal suffers from vague specification of total sample size, vague specification of sampling locations and sample sizes at locations, lack of hypotheses concerning where and why one might find resident and/or anadromous forms within the CV, and lack of specification of how laboratory results might be used to develop an overall notion of population structure. As noted above, a more ambitious study which addressed these deficiencies could probably be developed and should merit substantial attention from CALFED. Development of such a study would greatly benefit from collaboration with NMFS personnel.**
-Good	
XPoor	

1. **Goals.** Are the goals, objectives and hypotheses clearly stated and internally consistent? Is the concept timely and important?

   Goals and objectives seem vaguely specified to me and there are no real hypothesis concerning what one might or might not expect with respect to steelhead "population structure" in the Sacramento system. Although the title of the project suggests that the proposed work might have a strong genetics emphasis, in fact it seems primarily slanted

toward assessment of the degree to which both resident and anadromous forms are present at various locations throughout the Sacramento River system. That is certainly an interesting and important problem and Chris Zimmerman's doctoral work on Deschutes, OR, steelhead/rainbow trout certainly provides a provacative background and justification for this project.

2. **Justification.** Is the study justified relative to existing knowledge? Is a conceptual model clearly stated in the proposal and does it explain the underlying basis for the proposed work? Is the selection of research, pilot or demonstration project, or a full-scale implementation project justified?

   Some limited, preliminary research appears to have demonstrated that there may be some interbreeding of resident and anadromous forms. Anectdotal conversations with upriver (Redding) fishing guides suggest that there have been substantial numbers of anadromous fish present in the upper river in the past two years, fish of a size and coloration that suggests to me that they cannot be large resident rainbow trout. In previous years these guides have seen few such large, bright fish. Interbreeding is, of course, unknown, but would be prohibted by any obvious enviromental barriers.

3. **Approach.** Is the approach well designed and appropriate for meeting the objectives of the project? Are results likely to add to the base of knowledge? Is the project likely to generate novel information, methodology or approaches? Will the information ultimately be useful to decision-makers?

   The proposal is extremely weak with respect to specification of methods. Among other things, sample size = 600 at one point, "up to 600"" at another point, and "250-600" at still another point. It is not clear whether fish will need to be killed to collect otoliths or how a large sample might otherwise be obtained (e.g. from "archived otoliths"). More importantly, the authors present no motivation for the particular locations where they propose to collect specimens. If only 600 specimens will be collected in total, it is impossible to judge the merits of this proposal without knowing where, why and how many fish would be collected at various locations. Absence of a sampling plan perhaps reflects absence of any hypotheses concerning where one might expect to see interbreeding of resident and anadromous forms. Obviously, if all 600 specimens were collected from the same location one could not draw any inferences concerning "Central Valley Steelhead Population Structure". I also wonder whether or not some useful (though less definitive) information might be drawn from working on otoliths collected from juveniles, where issues of killing fish might be less severe. This possibility does not seem to be considered.

4. **Feasibility.** Is the approach fully documented and technically feasible? What is the likelihood of success? Is the scale of the project consistent with the objectives?

   Zimmerman has done this kind of Sr-CA analysis before and has gotten his research published in, I think, CJFAS, so it must have met rigorous peer review standards. Therefore, I am sure that the technical aspects of project could be completed. Achieving the projects larger objectives - to assess "CV steelhead population structure" seems beyond the scope of the proposed methods. Among other things, there is no indiciation that the PIs have thought much about how to delineate "stock structure" based on the kinds of results that Zimmerman might provide.

5. **Project-Specific Performance Measures.** Does the project include appropriate performance measures to measure success relative to the project's goals and objectives? Is there enough detail as to how the performance measures will be quantified? For restoration projects, are monitoring plans explicit and detailed enough to determine if performance measures will be adequately assessed?

Quarterly reports, presentations at meetings, final report, publication, etc.

6. <u>**Products.**</u> Are products of value likely from the project? Specifically for restoration projects, are products of value also likely from the monitoring component? Are interpretative outcomes likely from the project?

   Results from this work might be exceptionally valuable, especially for NMFS-appointed Technical Recovery Teams that will be dealing with CV steelhead, but as noted before there is no indication of how these results might be integrated with genetic information which must surely provide a better basis to judge stock structure of CV steelhead.

7. <u>**Capabilities.**</u> What is the track record of applicants in terms of past projects? Is the project team qualified to efficiently and effectively implement the proposed project? Do they have available the infrastructure and other aspects of support necessary to accomplish the project?

   Zimmerman is a very competent guy. Snider should certainly be aware of where steelhead historically were found as compared to where they are found at present.

8. <u>**Cost/Benefit Comments.**</u> Is the budget reasonable and adequate for the work proposed?

   Compared to other CALFED proposals, this one is "for free" ($95k/2 yr).

   My guess is that a much expanded set of collections, including juveniles but "calibrated" by smaller numbers of adults, with explicit numerical sample objectives for specific Sacramento streams would require several thousand specimens to be worked up, increasing the cost about 3X to deliver a much improved product.

<u>Miscellaneous comments:</u>

Despite my negative remarks concerning how this proposal is packaged, I believe that a restructured proposal (about 3x budget and much more explicit sampling design and some initial hypotheses concerning residency/anadromy) with a more accurate title (something like "Geographic variation in residence, anadromy and interbreeding of CV steelhead/rainbow trout") would be well worth funding under CALFED. It would be nice to allow a substantial revision of this proposal to accomplish that objective given the fine genetic proposal submitted by Garza et al.

External Scientific: #3

Proposal Number: **13**

Applicant Organization: **California Department of Fish and Game**

Proposal Title: **Central Valley Steelhead Population Structure Evaluation**

Conflict of Interest Statements:
I have no financial interest in this proposal.
XCorrect
-Incorrect

In the blank below please explain any connection to proposal, to applicant, co-applicant or subcontractor or to submitting institution (write "none" if no connection):

none

Review:

Please provide an overall evaluation summary rating:

Excellent: outstanding in all respects;
Good: quality but some deficiencies;
Poor: serious deficiencies.

Overall Evaluation Summary Rating	Provide a brief explanation of your summary rating
XExcellent	**Approach is innovative but practical. Project seems within grasp of authors and budget is reasonable. I have some concern about level of uncertainty associated with sample design. Applicant should involve more local stakeholders in basins for sampling.**
-Good	
-Poor	

1. **Goals.** Are the goals, objectives and hypotheses clearly stated and internally consistent? Is the concept timely and important?

   Very good.

2. **Justification.** Is the study justified relative to existing knowledge? Is a conceptual model clearly stated in the proposal and does it explain the underlying basis for the proposed work? Is the selection of research, pilot or demonstration project, or a full-scale implementation project justified?

   Very good.

3. **Approach.** Is the approach well designed and appropriate for meeting the objectives of the project? Are results likely to add to the base of knowledge? Is the project likely to generate novel information, methodology or approaches? Will the information ultimately be useful to decision-makers?

   Good. Regional reviews express concern about outreach to watersheds considered for sampling.

4. **Feasibility.** Is the approach fully documented and technically feasible? What is the likelihood of success? Is the scale of the project consistent with the objectives?

   Very good- It is within the grasp of the authors.

5. **Project-Specific Performance Measures.** Does the project include appropriate performance measures to measure success relative to the project's goals and objectives? Is there enough detail as to how the performance measures will be quantified? For restoration projects, are monitoring plans explicit and detailed enough to determine if performance measures will be adequately assessed?

   Good- This proposal should be contigent on previous phase. Performance could vary with sample size of 250 to 600 fish.

6. **Products.** Are products of value likely from the project? Specifically for restoration projects, are products of value also likely from the monitoring component? Are interpretative outcomes likely from the project?

   Good- Require applicants to submit an explicit schedule for product completion.

7. **Capabilities.** What is the track record of applicants in terms of past projects? Is the project team qualified to efficiently and effectively implement the proposed project? Do they have available the infrastructure and other aspects of support necessary to accomplish the project?

   Very good.

8. **Cost/Benefit Comments.** Is the budget reasonable and adequate for the work proposed?

   Very good.

Miscellaneous comments:

USFWS "Genetic comparison of stocks considered for re-establishing steelhead in Clear Creek, a tributary to the Upper Sacramento River." Coordinate with assessment of life history characteristics and genetic composition of Oncorhyncus mykiss throughout California.

Prior Performance/Next Phase Funding:

New Proposal Number: 13

New Proposal Title: Central Valley Steelhead Population Structure Evaluation

1. Prior CALFED project numbers, titles, and programs: (*list only projects for which you are the contract manager*)

   ERP 99-N12 - Central Valley Steelhead Genetics Evaluation

2. Prior CVPIA project numbers, titles, and programs: (*list only projects for which you are the contract manager*)

   N/A

3. Have negotiations about contracts or contact amendments with this applicant proceeded smoothly, without persistent difficulties related to standard contract terms and conditions?

   XYes **-**No **-**N/A

   If no, please explain any difficulties:

4. Are the status, progress, and accomplishments of the applicant's current CALFED or CVPIA project(s) accurately stated?

   XYes **-**No **-**N/A

   If no, please explain any inaccuracies:

5. Is the applicant's progress towards these project(s)' milestones and outcomes to date satisfactory?

   XYes **-**No **-**N/A

   If no, please explain deficiencies:

6. Is the applicant's reporting, records keeping, and financial management of these projects satisfactory?

   XYes **-**No **-**N/A

   If no, please explain deficiencies:

7. Will the project(s) be ready for next phase funding in 2002, based on its current progress and expenditure rates?

   XYes **-**No **-**N/A

If no, please explain:

Other Comments:

Katie Perry has been a knowledgeable and effective project manager.

Environmental Compliance:

Proposal Number: 13

Applicant Organization: California Department of Fish and Game

Proposal Title: Central Valley Steelhead Population Structure Evaluation

1. Are the legal or regulatory issues that affect the proposal identified adequately in the proposal?

   -Yes **X**No

   If no, please explain:

   Although project proponents are correct that they will likely qualify for a Categorical Exemption under CEQA, this is still a CEQA document and should be noted as such on the Environmental Compliance Checklist.

2. Does the project's timeline and budget reflect adequate planning to address legal and regulatory issues that affect the proposal?

   XYes **-**No

   If no, please explain:

   Although Categorical Exemptions and Exclusions do not require fees, there still must be time allowed for filing.

3. Do the legal and regulatory issues that affect the proposal significantly impair the project's feasibility?

   -Yes **X**No

   If yes, please explain:

   If project proponents file a Categorical Exemption, they will be in compliance with CEQA and this project is feasible.

Other Comments:

Budget:

Proposal Number: 13

Applicant Organization: California Department of Fish and Game

Proposal Title: Central Valley Steelhead Population Structure Evaluation

1. Does the proposal include a detailed budget for each year of requested support?

    XYes **-**No

    If no, please explain:

2. Does the proposal include a detailed budget for each task identified?

    XYes **-**No

    If no, please explain:

3. Does the proposal clearly state the type of expenses encompassed in indirect rates or overhead costs?

    XYes **-**No

    If no, please explain:

4. Are appropriate project management costs clearly identified?

    XYes **-**No

    If no, please explain:

5. Do the total funds requested (Form I, Question 17A) equal the combined total annual costs in the budget summary?

    -Yes **X**No

    If no, please explain (for example, are costs to be reimbursed by cost share funds included in the budget summary).

    difference of $30,198.00 Calfed's cost is $65,002. See comment in budget summary.

6. Does the budget justification adequately explain major expenses?

    XYes **-**No

If no, please explain:

7. Are there other budget issues that warrant consideration?

   -Yes **X**No

   If yes, please explain:

Other Comments: